

Release notes for ENDF/B Development n-042_Mo_097
evaluation

ENDF
B-VII.dev

April 26, 2017

- checkr Warnings:

1. A previous error halted parsing of the current section
MAT=4240, MF= 1, MT=451 (1): Parsing stopped

```
ERROR(S) FOUND IN MAT=4240, MF= 1, MT=451
SECTION CANNOT BE CHECKED FROM SEQUENCE NUMBER      359 TO      428
```

2. Generic warning message
MAT=4240, MF= 3, MT=107 (1): Warning

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT=107
WARNING(S)      IN MAT=4240, MF= 3, MT=203
```

3. Generic warning message
MAT=4240, MF= 3, MT=203 (1): Warning

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT=203
WARNING(S)      IN MAT=4240, MF= 3, MT=204
```

4. Generic warning message
MAT=4240, MF= 3, MT=204 (1): Warning

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT=204
WARNING(S)      IN MAT=4240, MF= 3, MT=205
```

5. Generic warning message
MAT=4240, MF= 3, MT=205 (1): Warning

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT=205
WARNING(S)      IN MAT=4240, MF= 3, MT=206
```

6. Generic warning message
MAT=4240, MF= 3, MT=206 (1): Warning

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT=206
WARNING(S)      IN MAT=4240, MF= 3, MT=207
```

7. Generic warning message
MAT=4240, MF= 6, MT= 91 (1): Warning

```
ERROR(S) FOUND IN MAT=4240, MF= 6, MT= 91
WARNING(S)      IN MAT=4240, MF= 6, MT=203
```

8. Generic warning message
MAT=4240, MF= 6, MT=203 (1): Warning

```
ERROR(S) FOUND IN MAT=4240, MF= 6, MT=203
WARNING(S)      IN MAT=4240, MF= 6, MT=204
```

9. Generic warning message
MAT=4240, MF= 6, MT=204 (1): Warning

```
ERROR(S) FOUND IN MAT=4240, MF= 6, MT=204
WARNING(S)      IN MAT=4240, MF= 6, MT=205
```

10. Generic warning message
MAT=4240, MF= 6, MT=205 (1): Warning

```

ERROR(S) FOUND IN MAT=4240, MF= 6, MT=205
WARNING(S)      IN MAT=4240, MF= 6, MT=206

```

11. Generic warning message
MAT=4240, MF= 6, MT=206 (1): Warning

```

ERROR(S) FOUND IN MAT=4240, MF= 6, MT=206
WARNING(S)      IN MAT=4240, MF= 6, MT=207

```

• checkr Errors:

1. A variable is outside the allowed ENDF range
MAT=4240, MF= 1, MT=451 (0): Variable range

```

ERROR(S) FOUND IN MAT=4240, MF= 1, MT=451
MOD =      1 OUT OF RANGE      0 -      0      RECORD NUMBER      359

```

2. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF= 2, MT=151 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4240, MF= 2, MT=151
SECTION  2/151 NOT IN DIRECTORY      RECORD NUMBER      430

```

3. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF= 3, MT= 1 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 1
SECTION  3/ 1 NOT IN DIRECTORY      RECORD NUMBER      737

```

4. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF= 3, MT= 2 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 2
SECTION  3/ 2 NOT IN DIRECTORY      RECORD NUMBER      901

```

5. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF= 3, MT= 4 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 4
SECTION  3/ 4 NOT IN DIRECTORY      RECORD NUMBER     1065

```

6. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF= 3, MT= 16 (0): Directory (b)

```

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 16
SECTION  3/ 16 NOT IN DIRECTORY      RECORD NUMBER     1087

```

7. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 17 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 17
SECTION 3/ 17 NOT IN DIRECTORY RECORD NUMBER 1096

8. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 22 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 22
SECTION 3/ 22 NOT IN DIRECTORY RECORD NUMBER 1102

9. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 28 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 28
SECTION 3/ 28 NOT IN DIRECTORY RECORD NUMBER 1112

10. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 51 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 51
SECTION 3/ 51 NOT IN DIRECTORY RECORD NUMBER 1120

11. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 52 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 52
SECTION 3/ 52 NOT IN DIRECTORY RECORD NUMBER 1139

12. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 53 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 53
SECTION 3/ 53 NOT IN DIRECTORY RECORD NUMBER 1156

13. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 54 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 54
SECTION 3/ 54 NOT IN DIRECTORY RECORD NUMBER 1173

14. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 55 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 55
SECTION 3/ 55 NOT IN DIRECTORY RECORD NUMBER 1190

15. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 56 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 56
SECTION 3/ 56 NOT IN DIRECTORY          RECORD NUMBER 1206
```

16. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 57 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 57
SECTION 3/ 57 NOT IN DIRECTORY          RECORD NUMBER 1222
```

17. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 58 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 58
SECTION 3/ 58 NOT IN DIRECTORY          RECORD NUMBER 1237
```

18. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 59 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 59
SECTION 3/ 59 NOT IN DIRECTORY          RECORD NUMBER 1252
```

19. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 60 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 60
SECTION 3/ 60 NOT IN DIRECTORY          RECORD NUMBER 1267
```

20. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 61 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 61
SECTION 3/ 61 NOT IN DIRECTORY          RECORD NUMBER 1281
```

21. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 62 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 62
SECTION 3/ 62 NOT IN DIRECTORY          RECORD NUMBER 1295
```

22. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 3, MT= 63 (0): Directory (b)

```
ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 63
SECTION 3/ 63 NOT IN DIRECTORY          RECORD NUMBER 1308
```

23. Missing a section in directory so your directory is messed up. This error will break everything else
~~MAT=4240~~, MF= 3, MT= 91 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4240, MF= 3, MT= 91 | | |
| SECTION 3/ 91 NOT IN DIRECTORY | RECORD NUMBER | 1321 |
24. Missing a section in directory so your directory is messed up. This error will break everything else
~~MAT=4240~~, MF= 3, MT=102 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4240, MF= 3, MT=102 | | |
| SECTION 3/102 NOT IN DIRECTORY | RECORD NUMBER | 1336 |
25. Missing a section in directory so your directory is messed up. This error will break everything else
~~MAT=4240~~, MF= 3, MT=103 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4240, MF= 3, MT=103 | | |
| SECTION 3/103 NOT IN DIRECTORY | RECORD NUMBER | 1361 |
26. Missing a section in directory so your directory is messed up. This error will break everything else
~~MAT=4240~~, MF= 3, MT=104 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4240, MF= 3, MT=104 | | |
| SECTION 3/104 NOT IN DIRECTORY | RECORD NUMBER | 1376 |
27. Missing a section in directory so your directory is messed up. This error will break everything else
~~MAT=4240~~, MF= 3, MT=105 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4240, MF= 3, MT=105 | | |
| SECTION 3/105 NOT IN DIRECTORY | RECORD NUMBER | 1388 |
28. Missing a section in directory so your directory is messed up. This error will break everything else
~~MAT=4240~~, MF= 3, MT=106 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4240, MF= 3, MT=106 | | |
| SECTION 3/106 NOT IN DIRECTORY | RECORD NUMBER | 1399 |
29. Missing a section in directory so your directory is messed up. This error will break everything else
~~MAT=4240~~, MF= 3, MT=107 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4240, MF= 3, MT=107 | | |
| SECTION 3/107 NOT IN DIRECTORY | RECORD NUMBER | 1409 |
30. Missing a section in directory so your directory is messed up. This error will break everything else
~~MAT=4240~~, MF= 3, MT=203 (0): Directory (b)
- | | | |
|---|---------------|------|
| ERROR(S) FOUND IN MAT=4240, MF= 3, MT=203 | | |
| SECTION 3/203 NOT IN DIRECTORY | RECORD NUMBER | 1425 |

31. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=3$, $MT=204$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=3$, $MT=204$
SECTION 3/204 NOT IN DIRECTORY RECORD NUMBER 1506
32. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=3$, $MT=205$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=3$, $MT=205$
SECTION 3/205 NOT IN DIRECTORY RECORD NUMBER 1518
33. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=3$, $MT=206$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=3$, $MT=206$
SECTION 3/206 NOT IN DIRECTORY RECORD NUMBER 1529
34. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=3$, $MT=207$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=3$, $MT=207$
SECTION 3/207 NOT IN DIRECTORY RECORD NUMBER 1539
35. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=4$, $MT=2$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=4$, $MT=2$
SECTION 4/ 2 NOT IN DIRECTORY RECORD NUMBER 1566
36. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=4$, $MT=51$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=4$, $MT=51$
SECTION 4/ 51 NOT IN DIRECTORY RECORD NUMBER 1765
37. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=4$, $MT=52$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=4$, $MT=52$
SECTION 4/ 52 NOT IN DIRECTORY RECORD NUMBER 1869
38. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=4$, $MT=53$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=4$, $MT=53$
SECTION 4/ 53 NOT IN DIRECTORY RECORD NUMBER 1901

39. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 54 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 54
SECTION 4/ 54 NOT IN DIRECTORY RECORD NUMBER 2003

40. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 55 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 55
SECTION 4/ 55 NOT IN DIRECTORY RECORD NUMBER 2102

41. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 56 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 56
SECTION 4/ 56 NOT IN DIRECTORY RECORD NUMBER 2134

42. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 57 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 57
SECTION 4/ 57 NOT IN DIRECTORY RECORD NUMBER 2166

43. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 58 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 58
SECTION 4/ 58 NOT IN DIRECTORY RECORD NUMBER 2198

44. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 59 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 59
SECTION 4/ 59 NOT IN DIRECTORY RECORD NUMBER 2230

45. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 60 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 60
SECTION 4/ 60 NOT IN DIRECTORY RECORD NUMBER 2260

46. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 61 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 61
SECTION 4/ 61 NOT IN DIRECTORY RECORD NUMBER 2289

47. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 62 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 62
SECTION 4/ 62 NOT IN DIRECTORY RECORD NUMBER 2378

48. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 4, MT= 63 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 4, MT= 63
SECTION 4/ 63 NOT IN DIRECTORY RECORD NUMBER 2407

49. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 6, MT= 16 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 6, MT= 16
SECTION 6/ 16 NOT IN DIRECTORY RECORD NUMBER 2500

50. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 6, MT= 17 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 6, MT= 17
SECTION 6/ 17 NOT IN DIRECTORY RECORD NUMBER 3166

51. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 6, MT= 22 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 6, MT= 22
SECTION 6/ 22 NOT IN DIRECTORY RECORD NUMBER 3321

52. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 6, MT= 28 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 6, MT= 28
SECTION 6/ 28 NOT IN DIRECTORY RECORD NUMBER 4098

53. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 6, MT= 91 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 6, MT= 91
SECTION 6/ 91 NOT IN DIRECTORY RECORD NUMBER 4561

54. Missing a section in directory so your directory is messed up. This error will break everything else

MAT=4240, MF= 6, MT=203 (0): Directory (b)

ERROR(S) FOUND IN MAT=4240, MF= 6, MT=203
SECTION 6/203 NOT IN DIRECTORY RECORD NUMBER 5803

55. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=6$, $MT=204$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=6$, $MT=204$
SECTION 6/204 NOT IN DIRECTORY RECORD NUMBER 6204
56. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=6$, $MT=205$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=6$, $MT=205$
SECTION 6/205 NOT IN DIRECTORY RECORD NUMBER 6398
57. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=6$, $MT=206$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=6$, $MT=206$
SECTION 6/206 NOT IN DIRECTORY RECORD NUMBER 6570
58. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=6$, $MT=207$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=6$, $MT=207$
SECTION 6/207 NOT IN DIRECTORY RECORD NUMBER 6678
59. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=12$, $MT=102$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=12$, $MT=102$
SECTION 12/102 NOT IN DIRECTORY RECORD NUMBER 7316
60. Missing a gamma spectrum for continuum of gammas
 $MAT=4240$, $MF=12$, $MT=102$ (1): *No gamma spectrum*
- ERROR(S) FOUND IN $MAT=4240$, $MF=12$, $MT=102$
CONTINUUM PHOTONS REQUIRE A SECTION IN $MF=15$
61. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=13$, $MT=3$ (0): *Directory (b)*
- ERROR(S) FOUND IN $MAT=4240$, $MF=13$, $MT=3$
SECTION 13/ 3 NOT IN DIRECTORY RECORD NUMBER 7325
62. Missing a gamma spectrum for continuum of gammas
 $MAT=4240$, $MF=13$, $MT=3$ (1): *No gamma spectrum*
- ERROR(S) FOUND IN $MAT=4240$, $MF=13$, $MT=3$
CONTINUUM PHOTONS REQUIRE A SECTION IN $MF=15$
63. Missing a section in directory so your directory is messed up. This error will break everything else
 $MAT=4240$, $MF=14$, $MT=3$ (0): *Directory (b)*

- | | | |
|--|--|--------------------|
| | ERROR(S) FOUND IN MAT=4240, MF=14, MT= 3 | |
| | SECTION 14/ 3 NOT IN DIRECTORY | RECORD NUMBER 7337 |
64. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF=14, MT=102 (0): Directory (b)
- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=4240, MF=14, MT=102 | |
| | SECTION 14/102 NOT IN DIRECTORY | RECORD NUMBER 7339 |
65. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF=15, MT= 3 (0): Directory (b)
- | | | |
|--|--|--------------------|
| | ERROR(S) FOUND IN MAT=4240, MF=15, MT= 3 | |
| | SECTION 15/ 3 NOT IN DIRECTORY | RECORD NUMBER 7342 |
66. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF=15, MT=102 (0): Directory (b)
- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=4240, MF=15, MT=102 | |
| | SECTION 15/102 NOT IN DIRECTORY | RECORD NUMBER 7790 |
67. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF=33, MT= 1 (0): Directory (b)
- | | | |
|--|--|--------------------|
| | ERROR(S) FOUND IN MAT=4240, MF=33, MT= 1 | |
| | SECTION 33/ 1 NOT IN DIRECTORY | RECORD NUMBER 7954 |
68. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF=33, MT= 2 (0): Directory (b)
- | | | |
|--|--|--------------------|
| | ERROR(S) FOUND IN MAT=4240, MF=33, MT= 2 | |
| | SECTION 33/ 2 NOT IN DIRECTORY | RECORD NUMBER 8191 |
69. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF=33, MT= 4 (0): Directory (b)
- | | | |
|--|--|--------------------|
| | ERROR(S) FOUND IN MAT=4240, MF=33, MT= 4 | |
| | SECTION 33/ 4 NOT IN DIRECTORY | RECORD NUMBER 8428 |
70. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF=33, MT= 16 (0): Directory (b)
- | | | |
|--|---|--------------------|
| | ERROR(S) FOUND IN MAT=4240, MF=33, MT= 16 | |
| | SECTION 33/ 16 NOT IN DIRECTORY | RECORD NUMBER 8550 |
71. Missing a section in directory so your directory is messed up. This error will break everything else
MAT=4240, MF=33, MT=102 (0): Directory (b)

• recent Warnings:

1. Statistical weight of certain L values were incorrect
0: RRR goof (a)

```
Calculate Cross Sections from Resonance Parameters (RECENT 2015-1)
=====
Retrieval Criteria----- MAT
File 2 Minimum Cross Section- 1.0000E-10 (Standard Option)
Reactions with No Background- Output (Resonance Contribution)
... [610 more lines]
```

• fudge-4.0 Warnings:

1. Missing a channel with a particular angular momenta combination
resonances / resolved (Error # 1): missingResonanceChannel

```
WARNING: Missing a channel with angular momenta combination L = 0, J = 1.0 and S = 1.0 for "capture"
WARNING: Missing a channel with angular momenta combination L = 1, J = 1.0 and S = 1.0 for "capture"
WARNING: Missing a channel with angular momenta combination L = 1, J = 2.0 and S = 1.0 for "capture"
WARNING: Missing a channel with angular momenta combination L = 1, J = 2.0 and S = 2.0 for "capture"
... plus 1 more instances of this message
```

2. Unnormalized outgoing probability distribution
reaction label 14: n + Mo97_c / Product: n / Distribution: / energyAngular - XYs3d:
(Error # 0): Bad norm

```
WARNING: Unnormalized distribution! At energy_in = 1128630. eV (index 0), integral = 0.5
WARNING: Unnormalized distribution! At energy_in = 1428630. eV (index 1), integral = 0.664468189543
WARNING: Unnormalized distribution! At energy_in = 1.5e6 eV (index 2), integral = 0.664468407352
WARNING: Unnormalized distribution! At energy_in = 1.75e6 eV (index 3), integral = 0.797964052434
... plus 18 more instances of this message
```

3. Unnormalized outgoing probability distribution
reaction label 15: n[multiplicity:'2'] + Mo96 / Product: n / Distribution: / energyAn-
gular - XYs3d: (Error # 0): Bad norm

```
WARNING: Unnormalized distribution! At energy_in = 6886940. eV (index 0), integral = 0.5
WARNING: Unnormalized distribution! At energy_in = 7186940. eV (index 1), integral = 0.664468189543
WARNING: Unnormalized distribution! At energy_in = 8.e6 eV (index 2), integral = 0.803874299802
WARNING: Unnormalized distribution! At energy_in = 9.e6 eV (index 3), integral = 0.861056262393
... plus 11 more instances of this message
```

4. Unnormalized outgoing probability distribution
reaction label 16: n[multiplicity:'3'] + Mo95 / Product: n / Distribution: / energyAn-
gular - XYs3d: (Error # 0): Bad norm

```
WARNING: Unnormalized distribution! At energy_in = 1.61365e7 eV (index 0), integral = 0.5
WARNING: Unnormalized distribution! At energy_in = 1.64365e7 eV (index 1), integral = 0.693552330849
WARNING: Unnormalized distribution! At energy_in = 1.7e7 eV (index 2), integral = 0.69354961155
WARNING: Unnormalized distribution! At energy_in = 1.8e7 eV (index 3), integral = 0.846753739278
... plus 2 more instances of this message
```

5. Unnormalized outgoing probability distribution
reaction label 17: n + H1 + Nb96 / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Bad norm


```
WARNING: Unnormalized distribution! At energy_in = 9316390. eV (index 0), integral = 0.5
WARNING: Unnormalized distribution! At energy_in = 9616390. eV (index 1), integral = 0.771231060669
WARNING: Unnormalized distribution! At energy_in = 1.1e7 eV (index 2), integral = 0.77122901988
WARNING: Unnormalized distribution! At energy_in = 1.2e7 eV (index 3), integral = 0.738163195035
... plus 8 more instances of this message
```
6. Unnormalized outgoing probability distribution
reaction label 19: n + He4 + Zr93 / Product: n / Distribution: / energyAngular - XYs3d: (Error # 0): Bad norm


```
WARNING: Unnormalized distribution! At energy_in = 2850810. eV (index 0), integral = 0.5
WARNING: Unnormalized distribution! At energy_in = 3150810. eV (index 1), integral = 0.664468189543
WARNING: Unnormalized distribution! At energy_in = 6.e6 eV (index 2), integral = 0.664468407352
WARNING: Unnormalized distribution! At energy_in = 7.e6 eV (index 3), integral = 0.720986390019
... plus 13 more instances of this message
```
7. For distributions, flat interpolation along incident energy is unphysical!
production label 25: /reactionSuite/reactions/production[@label='25'] / Product: gamma / Distribution: / uncorrelated - energy - XYs2d: (Error # 0): flatIncidentEnergyInterpolation


```
WARNING: For distributions, flat interpolation along incident energy is unphysical!
```
8. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 0: total (Error # 0): CS Sum.


```
WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.15%
```
9. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 1: nonelastic (Error # 0): CS Sum.


```
WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.90%
```
10. Cross section does not match sum of linked reaction cross sections
crossSectionSum label 2: (z,n) (Error # 0): CS Sum.


```
WARNING: Cross section does not match sum of linked reaction cross sections! Max diff: 0.10%
```
11. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 0 (total): / Form 'eval': / Component 0 (Error # 0): Condition num.


```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```
12. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.
Section 0 (total): / Form 'eval': / Component 1 (Error # 0): Condition num.


```
WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small
```

13. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 1 ($n + \text{Mo97}$): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

14. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 1 ($n + \text{Mo97}$): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

15. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 2 ((z,n)): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

16. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 3 ($n[\text{multiplicity:}'2'] + \text{Mo96}$): / Form 'eval': (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

17. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 4 ($\text{Mo98} + \text{gamma}$): / Form 'eval': / Component 0 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

18. The ratio of smallest/largest eigenvalue is quite small, possibly leading to numerical instability in downstream codes.

Section 4 ($\text{Mo98} + \text{gamma}$): / Form 'eval': / Component 1 (Error # 0): Condition num.

WARNING: Ratio of smallest/largest eigenvalue (0.000000e+00) is too small

- fudge-4.0 Errors:

1. The spin statistical weights are off, indicating missing channels
resonances / resolved / MultiLevel_BreitWigner (Error # 0): badSpinStatisticalWeights

WARNING: The spin statistical weights for L=1 sums to 2.0, but should sum to 3.0. You have too few channels for re

2. Calculated and tabulated Q values disagree.
reaction label 15: $n[\text{multiplicity:}'2'] + \text{Mo96}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -6870337.174087524 eV vs -6815980. eV!

3. Calculated and tabulated Q values disagree.
reaction label 16: $n[\text{multiplicity:}'3'] + \text{Mo95}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -16024658.02027893 eV vs -1.59703e7 eV!

4. Calculated and tabulated Q values disagree.
reaction label 17: $n + \text{H1} + \text{Nb96}$ (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -9274790.024047852 eV vs -9220410. eV!

5. Calculated and tabulated Q values disagree.
reaction label 18: Mo98 + gamma (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 8593525.424743652 eV vs 8642290. eV!

6. Calculated and tabulated Q values disagree.
reaction label 19: n + He4 + Zr93 (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -2897391.556900024 eV vs -2821440. eV!

7. Calculated and tabulated Q values disagree.
reaction label 20: H1 + Nb97_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -1201524.840545654 eV vs -1150430. eV!

8. Calculated and tabulated Q values disagree.
reaction label 21: H2 + Nb96_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -7050223.923110962 eV vs -6920010. eV!

9. Calculated and tabulated Q values disagree.
reaction label 22: H3 + Nb95_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -7686103.509155273 eV vs -7632460. eV!

10. Calculated and tabulated Q values disagree.
reaction label 23: He3 + Zr95_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: -8791646.725143433 eV vs -8736920. eV!

11. Calculated and tabulated Q values disagree.
reaction label 24: He4 + Zr94_s (Error # 0): Q mismatch

WARNING: Calculated and tabulated Q-values disagree: 5323723.15625 eV vs 5.3736e6 eV!

• njoy2012 Warnings:

1. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (0): HEATR/hinit (4)

---message from hinit---mf6, mt 16 does not give recoil za= 42096
one-particle recoil approx. used.

2. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (1): HEATR/hinit (4)

---message from hinit---mf6, mt 17 does not give recoil za= 42095
one-particle recoil approx. used.

3. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (2): HEATR/hinit (4)

---message from hinit---mf6, mt 22 does not give recoil za= 42097
one-particle recoil approx. used.

4. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (3): HEATR/hinit (4)

```
---message from hinit---mf6, mt 28 does not give recoil za= 42097
one-particle recoil approx. used.
```

5. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (4): HEATR/hinit (4)

```
---message from hinit---mf6, mt 91 does not give recoil za= 42097
one-particle recoil approx. used.
```

6. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (5): HEATR/hinit (4)

```
---message from hinit---mf6, mt203 does not give recoil za= 41097
one-particle recoil approx. used.
```

7. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (6): HEATR/hinit (4)

```
---message from hinit---mf6, mt204 does not give recoil za= 41096
one-particle recoil approx. used.
```

8. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (7): HEATR/hinit (4)

```
---message from hinit---mf6, mt205 does not give recoil za= 41095
one-particle recoil approx. used.
```

9. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (8): HEATR/hinit (4)

```
---message from hinit---mf6, mt206 does not give recoil za= 40095
one-particle recoil approx. used.
```

10. Recoil is not given, so one-particle recoil approximation used.
heatr...prompt kerma (9): HEATR/hinit (4)

```
---message from hinit---mf6, mt207 does not give recoil za= 40094
one-particle recoil approx. used.
```

- njoy2012 Errors:

1. Main energy grid is not monotonic
check...ace consistency check (0): Monotonic

```
check that main energy grid is monotonic
consis: energy 4.20000100E-01 less than 4.20000100E-01 (see point no. 13246)
```

- accelst Warnings:

1. generic warning message
0: Warning

```
ACELST WARNING - x.s. E-grid non-monot. 4.200001000E+05 4.200001000E+05
Formatting of MF6 not coded for MT          16 Law          61
```